Name _____ Date _____ Period _____

Newton's Second Law of Motion

Part A:

Use the equation $F = m \times a$ to complete the table.

Force (N)	Mass (kg)	Acceleration (m/s^2)
1.	15	20
3052	**2.**	70
3.	8.5	3
250	10	**4.**
5.	63	5.5
441	**6.**	21
50	**7.**	0.5
8.	0.3	0.6
2602.8	18	**9.**

Part B:

Complete the following questions. Write your answers in the spaces provided. ***Show your work*** below each question. DON'T FORGET THE UNITS!

_____ **1.** You push a shopping cart full of groceries with a mass of 1800 kg. If the cart accelerates at a mass of 3 m/s/s, how much was the **force** of your push?

_____ **2.** A bowling ball has a mass of 600 kg. If it is thrown with a force of 700 newtons, what is the **acceleration** of the bowling ball?

_____ **3.** A force of 5000 newtons is applied to a 1200 kg car. What is its **acceleration**?

_____ **4.** A baseball has a mass of 2.5 kg. After it is hit with a bat it has an acceleration of 36 m/s/s. How much **force** was used to make the ball travel that fast?